

County of San Diego  
New: January 22, 1993  
Reviewed: Spring 2003

**ECONOMIC ENTOMOLOGIST I**  
**ECONOMIC ENTOMOLOGIST II**  
**SENIOR ECONOMIC ENTOMOLOGIST**

**Class No. 005424**  
**Class No. 005425**  
**Class No. 005426**

**DEFINITION:**

To perform professional work involved in the detection, identification, exclusion, control, and eradication of insects and other plant pests within the county; and to perform related work.

**DISTINGUISHING CHARACTERISTICS:**

Positions in these classes are found only in the Department of Agriculture/Weights and Measures. Entomologists are professional biologists responsible for planning, organizing, and coordinating programs that detect and control plant pests such as insects, arthropods, and mollusks, and provide advisory and training services to agricultural concerns within the county.

**Economic Entomologist I:**

This is the entry-level class in the entomologist series with responsibility for insect identification, detection, and classification. This class differs from the next higher class, Economic Entomologist II, by the assignment of the more routine laboratory and fieldwork. Under general supervision, positions in this class assist higher-level positions with projects.

**Economic Entomologist II:**

This is the journey-level class in the entomologist series. Under general supervision, incumbents function as subject matter experts on pest eradication and exclusion methods. Economic Entomologist II's determine the economic impact of pests on commercial agricultural operations within the county and have project responsibility for designing and recommending appropriate control and/or eradication methods.

**Senior Economic Entomologist:**

This is the highest level class in the entomologist series. Under direction of the Chief, Agriculture Services, this class has responsibility for the planning, organizing, coordinating and providing technical support in county wide pest identification, control and education efforts. This class differs from the Economic Entomologist II in that it supervises the work of laboratory technicians and entomologists.

**EXAMPLES OF DUTIES:**

Identifies and classifies insects, arthropods, and mollusks collected in the county; performs laboratory tests to determine gender, maturity and fertility status; submits unusual specimens of potentially harmful insects, arthropods or mollusks to the State or other laboratories for confirmation of identity; interprets test results and prepares recommendations and reports; cooperates with universities and other agencies in coordinating pest control programs; conducts inspections and/or investigations of the major sources/sites of pest problems; trains department personnel in the detection and control of harmful insects or other pests; develops public information/education material for private, public and citizen groups; responds to public and agricultural complaints and requests for services; compiles and analyzes data; and prepares records, documents and reports for technical, operational and administrative use.

### **Economic Entomologist II:**

All of the duties listed above and: provides consultation/education to commercial agricultural operators on matters of insect and pest eradication and control; plans and conducts insect/pest population studies and areas surveys; evaluates economic significance of insect and plant pests; researches pest predators and recommends and develops measures to detect, exclude, control and eliminate harmful insects, arthropods, or mollusks; advises on quarantines and other regulatory measures to prevent introduction; prescribes measures to prevent introduction of pests; supports staff enforcement of state and local laws and regulations relating to pest eradication; presents information/evidence to various task forces and organizations; develops training and public information material; and may act as a subject matter expert on certain insects or groups of pests.

### **Senior Economic Entomologist:**

All of the duties listed above and: directs, plans, and assigns work of subordinate staff; organizes and oversees county wide pest programs; coordinates with state, federal and other counties on agricultural pests such as Africanized Honey Bee, White Fly, Mexican and Mediterranean Fruit Flies; prepares scientific and technical reports, papers and presentations; makes official statements to State, local and public media groups; oversees laboratory and field work; develops new pest detection, eradication, control and exclusion methods; plans, oversees and conducts training for County and agricultural interests; and acts as County subject matter expert on insects and agricultural pests.

### **MINIMUM QUALIFICATIONS:**

Knowledge Level:        T = Thorough     G = General     -- = Not Applicable

Classification Level:    I = Economic Entomologist I  
                                  II = Economic Entomologist II  
                                  SR = Senior Economic Entomologist

### **Knowledge of:**

<b><u>I</u></b>	<b><u>II</u></b>	<b><u>SR</u></b>	
T	T	T	Operation of a fully equipped entomology laboratory.
T	T	T	Statistical analysis.
T	T	T	Taxonomy and economies of major plant pests, including insects, other arthropods and mollusks of California and the United States.
T	T	T	Literature sources pertaining to entomology, agricultural, horticultural and native plants, plant pests and integrated pest management.
G	T	T	Insect ecology and control methods and techniques: naturalistic, comprehensive and integrated pest management.
G	T	T	Procedures for management of insect breeding places and environmental resources.
G	T	T	Laws and regulations pertaining to exotic insect pest introduction into California and the United States.
G	G	T	Federal, State and local laws and regulations pertaining to insect control.
G	G	G	Pesticide uses and safety procedures.
--	--	G	The General Management System in principle and in practice.

### **Skills and Abilities to:**

- Perform a variety of taxonomic and curatorial tasks.
- Evaluate pest status.
- Perform a variety of field and laboratory analyses and control techniques.

- Explain technical information to staff and the public.
- Interpret and enforce laws and regulations relating to insect control.
- Establish effective working relationships with staff and the public.
- Prepare clear and concise technical reports for lay and professional readers.

**Economic Entomologist II (in addition to the above):**

- Evaluate the economic importance/impact of insects to county agricultural operations and concerns.
- Evaluate sensitive issues and situations and resolve with sensitivity and tact.
- Participate effectively with industry, public agencies and citizen groups to solve pest problems.
- Prepare public information and educational material for private industry and the general public.
- Recommend and develop pest exclusion, detection, eradication, and control measures.
- Plan, organize, direct, and coordinate one or more pest detection and control program areas.

**Senior Economic Entomologist (in addition to the above):**

- Learn to effectively plan, assign, and supervise the work of others.
- Develop pest exclusion, detection, eradication, control programs and policies.
- Coordinate implementation of procedures to prevent and control pests and abate major insect problems.

**EDUCATION/EXPERIENCE:**

Education, training and/or experience which clearly demonstrate possession of the knowledge, skills and abilities stated above. Examples of qualifying education/experience are:

**Economic Entomologist I:**

1. A Bachelor's degree from an accredited college or university, with a major in zoology, entomology, biology or closely related field including 20 quarter units (15 semester units) in entomology; AND, two (2) years of professional experience in entomology; OR,
2. A Master's degree in entomology from an accredited college or university.

**Economic Entomologist II:**

1. Two (2) years of experience as an Economic Entomologist I in the County of San Diego, or its equivalent; OR,
2. A Bachelor's degree as stated above, with a major in zoology, entomology, biology or closely related field including 20 quarter units (15 semester units) in entomology; AND, and four (4) years of professional experience in entomology; OR,
3. A Master's degree in entomology as stated above; AND, two (2) years of professional entomology experience; OR,
4. A Ph.D. in entomology as stated above.

**Senior Economic Entomologist:**

1. One (1) year of experience as an Economic Entomologist II in the County of San Diego, or its equivalent; OR,
2. A Bachelor's degree as stated above, with a major in zoology, entomology, biology or closely related field including 20 quarter units (15 semester units) in entomology; AND, and five (5) years of professional experience in economic entomology; OR,

3. A Master's degree as stated above in entomology AND, three (3) years of professional entomology experience;  
OR,
4. A Ph.D. in entomology as stated above; AND, two (2) years of professional entomology experience.

**SPECIAL NOTES, LICENSES OR REQUIREMENTS:**

**License:**

A valid California Class C driver's license or the ability to arrange transportation for field travel is required at time of appointment and must be maintained throughout employment. Employees in these classes may be required to use their personal vehicle.

**Probationary Period:**

Incumbents appointed to permanent positions in these classes shall serve a probationary period of twelve months. (Civil Service Rule 4.2.5).